

LIST OF PRIOR ART CITED BY APPLICANT
(Use several sheets if necessary)

ATTY. DCKET NO.

SERIAL NO.

APPLICANT

FILING DATE

GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
38	AA	4671657	6/9/87	Calvani et al.	356	349	
	AB	5166752	11/24/92	Spanier et al.	356	369	
	AC	5349471	9/20/94	Morris et al.	359	585	
	AD	5877859	3/21/95	Aspnes et al.	356	364	
	AE	5963327	10/5/95	He et al.	356	369	
38	AF	5978087	11/2/95	Patterson et al.	356	369	
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
38	229720	2/21/94	Japan				

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

38	AR	WO 91/14157	Published PCT Application			
		WO 92/12404	" "	" "	" "	
38	AS	WO 96/18205	" "	" "	" "	
		WO 99/02950	" "	" "	" "	

EXAMINER	DATE CONSIDERED
Galen SA	5/13/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1/58 3,229 2/3
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OCT 11 2002
PLEASE USE THIS FOR PTO FORM 1449 FOR NON-PATENT MATERIALS
FEB 11 2003

3 Copy of December 1996 Vintage J.A. WOOLLAM CO. M-44/M-88 MULTIWAVELENGTH ELLIPSOMETERS indicating Focused Spot to 20 Microns, including signed Letter from Roger Bruhn, the photographer who took the pictures therein, which letter attests to the date it was produced.

3 Copy of SOPRA Brochure disclosing their MOSS System, which utilizes Achromatic Focusing lenses and which predates 11 July 2000. Sopra is a competitor of the J.A. Woollam Co. Inc.

3 Article from October 1997 J. of Tribology titled "Flying Height Measurement on Al_2O_3 Film of a Magentic Slider" by Yufeng Li of Samsung; discloses use of a J.A. Woollam Co. M-44 Multiwavelength Ellipsometer to focus a beam to 17 microns. This system had doublet achromatic lenses installed therein.

3 Article from Thin Solid Films Published 27 March 2000, by Zapien et al, showing use of achromatic focusing lenses before and after a sample in a spectroscopic ellipsometer.

3 Excerpts from a "classic" textbook titled OPTICS, by Hecht, Addison Wesley Press, (1977), which describes use of Multiple Element Achromatic Lenses.

3 Article from Thin Solid Films Published April 1993, by El-Ghazzawi et al, showing use of focusing lenses in the SOPRA company model "MOSS ES-4G Spectroscopic Ellipsometer"

3 Two J.A. Woollam Co. spectroscopic ellipsometer "models" with achromatic multiple-element lenses sold prior to July 11, 2000: "M-44 (44 wavelengths, blue to red), and "VASE" (continuous wavelengths from blue to infrared).

DETAILED DOCUMENTATION:

3 "M-44" spectroscopic ellipsometers:

- o Catalog pages of Edmund Scientific Corporation achromatic lens sets (dated prior to July 11, 2000).
- o J.A. Woollam Co., Inc. Purchase Orders from Edmund Scientific Company, with catalog cover dates and part numbers predating July 11, 2000.
- o Evidence of sales (Purchase orders, shipping documents, invoices, from customers) of the "M-44" type spectroscopic ellipsometers containing achromatic focusing lenses prior to July 11, 2000.
- o Order bills for M-44 Ellipsometer with achromatic focusing lenses for NANOMETRICS Corporation. Order numbers correspond with "Packing List" and "Purchase Order Receiver" numbers listed in Erik Bylin's Affidavit.

Zapien 8/13/03

2001 07 2002
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"VASE" spectroscopic ellipsometers:

- o Catalog pages of Melles Griot Corporation achromatic lens sets (with issue dates prior to July 11, 2000).
- o J.A. Woollam Co., Inc. Purchase Orders, packing list, shipping documents, invoices, from 2000 Melles Griot Corporation, with catalog cover dates and part numbers predating July 11, 2000.
- o Evidence of sales (Purchase orders, from customers) of the "VASE" type spectroscopic ellipsometers containing achromatic focusing lenses prior to July 11, 2000.
- o Instruction manual dated 1994 for use of the focusing VASE with achromatic focusing lenses.
- o VASE advertisement from February 1999 R&D Magazine.

**U.S., EPO AND JAPANESE VERSIONS OF DANNER ET AL.
PATENT APPLICATIONS:**

38
EPO EP 1 172 642 A2
JAPAN 2002098591 A
US US 2002/0024669 A1

38
**AFFIDAVITS ATTESTING TO THE FACT THAT THE J.A. WOOLLAM CO.,
INC. PROVIDED ELLIPSOmeter SYSTEMS WITH ACHROMATIC LENSES
ON BOTH SIDES OF A SAMPLE PRIOR TO 11 JUNE 2000.**

Affidavit from John Woollam, President of J.A. Woollam Co.

Affidavit from Hiroki Hashimoto of Fujitsu Corporation, Japan in both English and Japanese; along with the Fujitsu purchase order sheet and Acceptance Report.

Affidavit from Michio Suzuki of J.A. Woollam Co., Japan in both English and Japanese; along with purchase order sheet.

Affidavit from Geng Wang of Samsung Information Systems America, Inc.; along with the purchase order and original quotation.

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Affidavit from Erik Bylin, Product Manager, NANOmatics Corporation

Green *[Signature]* 5/13/03